



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

THE RADIAL VELOCITY OF BOSS 1517

This star, 72 Columbæ,  $\alpha = 6^h 1^m$ ,  $\delta = -3^\circ 10'$  (1900) is the well-known B-type star discovered by Voute with a proper motion of  $0''.123$  annually and a parallax of  $0''.05$ . Its radial velocity as determined by Wilson of the Lick Observatory in 1919 was  $+102$  km.

Three spectrograms taken with the 100-inch telescope and a one-prism spectrograph at Mount Wilson recently give a value of  $+99$  km. There seems to be no doubt, therefore, that this velocity, so remarkably high for a star of this type of spectrum, is constant within the errors of observation. The spectral class is B3 and appears to be quite normal.

W. S. ADAMS,  
A. H. JOY.

---

THE WAVE-LENGTHS OF CERTAIN BRIGHT LINES IN THE  
SPECTRA OF SOME M-TYPE STARS

The peculiar character of the spectrum of the three stars Boss 5650, *W Cephei* and H. D. 42474 has been referred to previously in these publications<sup>1</sup>. All three show a small variation in light and their spectra are characterized by strong emission lines of hydrogen with absorption lines superposed more or less unsymmetrically upon them in the case of the first and third stars.  $H\beta$  is much more intense than  $H\gamma$  and  $H\gamma$  than  $H\delta$ . According to the observations of Humason it is probable that  $H\alpha$  is the strongest line of the hydrogen series, and in this respect the spectrum differs strikingly from that of the ordinary Md variables in which  $H\delta$  or  $H\gamma$  is the most prominent line, at least near maximum of light. In the few dwarf M-type stars which have been found to show bright hydrogen lines, like the distant companion of *Castor* and W. B. 16<sup>h</sup>906, the lines of greater wave-length are also the more intense, and a similar behavior is true of the peculiar hydrogen emission spectrum of  $\alpha$  Ceti near minimum of light. It seems to be a general rule that when the bright lines are narrow and sharp those of shorter wave-lengths are the stronger, but when they are broad and diffuse the reverse is true.

In addition to the hydrogen lines the spectra of these three stars contain a number of other bright lines, some of which are very prominent. They are especially clear and well-defined in the spectrum of H. D. 42474 and their wave-lengths corrected

---

<sup>1</sup>Adams and Joy, *Publ. A. S. P.*, **33**, 263, 1921.

Humason, *Publ. A. S. P.*, **34**, 58, 1922, and **34**, 133, 1922.